REMARKS

I. Status of the Specification

The specification has been amended to add Sequence identifiers (SEQ ID NOS) to amino acid sequences appearing at pp. 7-11 of the original Specification. The amino acid sequences in question all appear in the Specification as filed. Thus, no new matter has been added by this amendment.

In addition, submitted electronically herewith is a Substitute Sequence Listing that replaces all prior Sequence Listings submitted in the application. The Substitute Sequence Listing adds SEQ ID NOS: 55-74. Support for the sequences added by this amendment listing is found in the original specification as follows:

SEQ ID NOS: 55-69: Page 8, lines 16-26, identified by sequence identifiers added by this amendment;

SEQ ID NO: 70: p. 11, lines 3-4, identified by sequence identifier added by this amendment;

SEQ ID NO: 71: p. 11, lines 11-13, identified by sequence identifier added by this amendment;

SEQ ID NO: 72: p. 7, lines 24-25, identified by sequence identifier added by this amendment;

SEQ ID NO: 73: p. 11, lines 22-25, identified by sequence identifier added by this amendment; and

SEQ ID NO: 74, p. 11, lines 9-10, identified by sequence identifier added by this amendment.

The Substitute Sequence Listing submitted herewith does not add new matter to the application. Entry of the Substitute Sequence Listing is respectfully requested.

II. Status of the Claims. Upon entry of this amendment, claims 1-3 and 7 are pending. Claim 1 has been amended. Claims 4-6 have been cancelled without prejudice or disclaimer. Applicants specifically reserve the right to pursue the subject matter of all cancelled claims in one or more continuation and/or divisional application, as appropriate.

Claim 1 has been amended to specify that the support, in addition to having a polypeptide (P) having 4 to 50 cell-adhesive minimum amino acid sequences (X) per molecule, also has 4 to 51 auxiliary amino acid sequences (Y). Support for this amendment is found at p. 7, lines 28-30; and p. 10, lines 12-17, of the original Specification.

By this Amendment, no new matter has been added to the application.

III. Objection to the Specification

The Examiner has objected to the specification because the specification fails to comply with sequence rules set forth in 37 C.F.R. §§ 1.821 – 1.825. More specifically, amino acid sequences appearing on pp. 8-11 of the specification as filed are missing sequence identifiers (i.e., SEQ ID NOS).

In response, Applicants submit herewith a Substitute Specification, amended to add sequence identifiers where necessary. In addition, Applicants submit herewith a Substitute Sequence Listing, adding SEQ ID NOS: 55-74, corresponding to sequence identifiers added to the specification by this amendment. The amino acid sequences in question all appear in the Specification as filed. Thus, no new matter has been added by this amendment.

IV. Response to Rejections

The claim rejections set forth in the Office Action are summarized and addressed, as follows.

(i) Rejections Under 35 U.S.C. §112, first paragraph.

Claim 5 stands rejected for alleged lack of enablement. In response, without addressing the validity of the rejection, Applicants have cancelled claim 5 without prejudice.

(ii) Rejections Under 35 U.S.C. §112, second paragraph

Claims 1-7 are rejected as allegedly indefinite, because it is unclear to the Examiner whether the language "per molecule" in the phrase "A method of producing a virus comprising: adhering adhesive cells to a support which has a polypeptide (P) having 4 to 50 cell-adhesive minimum amino acid sequences (X) per molecule" (in claim 1) refers to the support, the polypeptide (P) or the target of the polypeptide (P) (e.g., a receptor). In addition, the Examiner is unclear whether the language "4 to 50 cell-adhesive minimum amino acid sequences (X) per molecule" refers to sequences that are 4-50 amino acids in length, or an amino acid sequence that is a minimum of 4-50 amino acids long, or if there is a minimum of 4 and up to 50 sequences of amino acids per molecule.

In response, Applicants point the Examiner to a passage on page 7, lines 17-19 of the specification as filed, which states that "the number of cell-adhesive minimum amino acid sequences (X) contained in the polypeptide (P) is preferably 1 to 50 per molecule (P), more preferably 3 to 30, and particularly preferably 4 to 20." Thus, each polypeptide molecule contains 1 to 50 cell-adhesive minimum amino acid sequences (X).

Accordingly, Applicant believes that the pending claims are definite as written. Reconsideration of the claims and withdrawal of this rejection under 35 U.S.C. §112, second paragraph is requested.

(iii) Rejections Under 35 U.S.C. §102(b)

The Examiner asserts that claims 1-7 are anticipated by Kistner et al., "Development of a Vero cell-derived influenza whole virus vaccine," Dev Biol Stand., Vol. 98, pages 101-10 (1999) ("Kistner"). According to the Examiner, Kistner teaches producing influenza viruses in Vero cells attached to microcarriers which contain denatured collagen. The Examiner asserts that collagen is a natural cell binding protein, and finds support for this assertion in Wang and Ouyang, "Recycle of Cytodex-3 in Vero cell culture," Bioprocess Engineering, Vol. 21, pages 207-210 (1999) ("Wang").

The Examiner further asserts that, even though collagen is of animal origin, the denatured form of collagen employed in Kistner is a structurally distinct form of a naturally occurring collagen and is not of animal origin. Thus, according to the Examiner, Kistner anticipates claims 1-7 of the current application.

The Applicants respectfully traverse. Claim 1 as amended calls for 4 to 51 auxiliary amino acid sequences (Y) in addition to the cell-adhesive minimum amino acid sequences (X). The auxiliary amino acid sequences are used for the purpose of improving thermal resistance of the polypeptide (P) (see specification as filed, at page 7, line 28 – page 8, line 2), and are thus non cell-adhesive sequences. Kistner contains no disclosure whatsoever of auxiliary amino acid sequences that are not cell-adhesive. Indeed, Kistner (and also Wang) discloses only collagen, which as the Examiner admits, is a natural cell binding protein (Office Action, page 6, lines 17-19), and hence cell-adhesive. Thus, the method employed in Kistner does not include the use of the claimed non cell-adhesive auxiliary proteins, and Kistner, for at least this reason, cannot anticipate claim 1. And, at least because claims 2, 3 and 7 depend from claim 1 and thus incorporate all of the limitations of claim 1, Kistner does not anticipate them, either.

Reconsideration of the claims and withdrawal of this rejections under 35 U.S.C. §102(b) is thus requested.

Claims 4-6 stand rejected under 35 U.S.C. § 102(a) as anticipated by Monath et al., "ACAM2000 clonal Vero cell culture vaccinia virus (New York City Board of Health strain)--a second-generation smallpox vaccine for biological defense," Int J Infect Dis.; Vol. 8, Suppl. 2, pages S31-44 (October 2004). In response, without addressing the validity of the rejection, Applicants have cancelled claims 4-6 without prejudice.

Claims 4-6 are further rejected as anticipated by U.S. patent 6,,372,223 to Kistner et al. (the '223 patent). In response, without addressing the validity of the rejection, Applicants have cancelled claims 4-6 without prejudice.

Thus, for at least the reasons set forth above, the rejection under 35 U.S.C. §102 have been addressed and overcome. Reconsideration of the claims and withdrawal of all rejections thereof under 35 U.S.C. §102 is requested.

V. Conclusion

This application is believed to be in condition for allowance, which is earnestly solicited. If the Examiner believes there are further issues that could be advance by an interview or entry of an Examiner's Amendment, the Examiner is invited to contact the undersigned attorney.

Dated: January 9, 2009

Respectfully submitted,

By _____

Andrew K. Holmes
Registration No.: 51,813
DARBY & DARBY P.C.
P.O. Box 770
Church Street Station
New York, New York 10008-0770
(212) 527-7700
(212) 527-7701 (Fax)
Attorneys/Agents For Applicant